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Long and Short Staple Cottons Compared

BY

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UTED IN FURTHERANCE OF THE ACTS OF CONGRESS OF MAY 8 AND JUNE 30, 1914

LONG AND SHORT STAPLE COTTONS COMPARED

By R. Y. WINTERS, S. W. HILL, AND P. H. KIME, *Division of Agronomy*

The careful farmer selects his workers from men who have given the b service for the amount paid. We know from experience that certain work are stronger, more intelligent and more productive in a given time. T same principle is true of our crops, for they are our workers during the s son they are grown. If past experiences show that certain crops or variet have given smaller net profits per acre, they should be replaced by crops t are more profitable.

When judged by this rule, let us see how the long staple and short sta cottons have served the growers of our state during the past ten years. F this purpose we shall compare the yields of lint and money value per a secured from 7/8 to 1 inch cottons with that of the 1 3/16 to 1 1/4 inch cotto The best varieties of these types of cotton have been included in thirte different variety tests in the eastern part of the state during the past t years. In each test the long staple and short staple varieties were grown s by side and were given the same attention throughout the season. The b short staple varieties in these tests have averaged 664 pounds of lint and t best varieties of the long staple have averaged 417 pounds of lint per ac This means that the best short staple cottons have yielded 247 pounds of l per acre more than the best long staple varieties. Suppose we compare t results from other states in the following table:

State	Number of Tests	Yield of Lint Pounds per Acre 1 3/16 to 1 1/4 Inch Staple	Yield of Li Pounds pe Acre 7/8 to 1 Inch Stapl
North Carolina	13	417	664
Mississippi	25	415	611
Arkansas	17	306	531
Georgia	14	332	608
Total and average	69	367.5	603.5

The results from other states are not very different from those of our o state. Many of our growers have been told that they could produce just much long staple cotton per acre as short. Do the carefully conducted te show this to be true?

Has the premium paid for long staple cotton been sufficient to overcome t difference in yield? It is true that we have gotten a larger price per pou for our long staple; but has it been large enough to overcome the differe in yield? For this comparison suppose we use the average yield of the t types of cotton and the average November price paid by the best long sta market in the southeast during the past ten years. The average Novemb

per pound and the money value per acre is given for each year in the below:

Year	Price per Pound, ⅞ to 1 Inch Cotton	Price per Pound, 1⅛ Inch Cotton	Value per Acre, ⅞ to 1 Inch	Value per Acre, 1⅛ Inch	Difference
----------	12.25	16.625	$ 81.34	$ 69.32	$ +12.02
----------	12.75	15.625	84.66	65.16	+19.50
----------	7.00	11.375	46.48	47.43	—.95
----------	11.125	15.55	73.87	64.84	+9.03
----------	18.75	26.75	124.50	111.55	+12.96
----------	27.50	39.875	182.60	166.28	+16.42
----------	27.50	34.625	182.60	139.39	+43.21
----------	37.625	79.625	249.83	332.04	—82.21
----------	16.00	29.25	104.24	121.97	—15.73
----------	19.00	30.50	126.16	127.18	—1.02

e 1921 prices were taken from the Memphis market of November 5. All s based on middling cotton.

cording to these results, the long staple cotton would have produced a ter money value per acre four of the ten years if we could have gotten the long staple prices. How near we come to this will be shown by the fol- ng prices: In 1914 the average price of a good long staple market was , our best price was 9.50; in 1915 the best market averaged 16.50, our on local markets was 14.50; in 1919 when long staple reached its highest , Raleigh's best November price was 54.00, and the Hartsville market aged 79.625 cents a pound.

COMPARISON OF GRADE

is more difficult to secure a good grade of long staple lint on account of ateness and the lack of facilities for ginning this type of cotton. Much of ong staple cotton has been damaged by ginning when too damp. A large on of the long staple has been grown from mixed seed that furnished a d staple. Lint from such cotton is not worth as much as a short staple ccount of the large amount of waste in manufacturing.

hat do the above results mean to the North Carolina cotton growers?

They mean that long staple will yield only two-thirds as much lint per as the best short staple varieties.

That when we consider our local market prices, yield, grade and expense andling, the long staple cottons have not produced as profitably per acre ave the best short staple varieties during the past ten years.

RECOMMENDATIONS

ne above information directs our course, for the present at least, without tion. When we consider the difference in yield, our markets are not pay- sufficient premium to make the growing of long staple cotton as profitable ne best short staple cottons.

uring the past nine years the Division of Agronomy has been improving on seed to best adapt them to North Carolina conditions. These strains e been selected for high yield, earliness and more uniform staple. Since

there is a greater demand for the inch to inch and an eight staples, eff have been made to establish high yielding strains of this type. The follow are some of the varieties that have been introduced and bred for this purp

Wannamaker Cleveland Big Boll.—The Cleveland cotton has a medi boll 15/16 to 1 inch staple and supplies 38 to 42 per cent lint. This variety been the highest yielder of lint during the past nine years. It can be succ fully grown on any well-drained soil of the coastal plain and southeast piedmont section. Eight growers of the state are selecting good seed of t variety each year with the aid of the Division of Agronomy.

Mexican Big Boll No. 6.—This is an early medium boll cotton wh supplies 1 1/16 inch cotton, 35 to 37 per cent lint, and has yielded well in tests during the past three years. It does not yield quite as much lint acre as Cleveland, but on account of its longer staple usually brings a grea money value per acre. This variety is recommended for the piedmont coastal plain sections, where an early variety is desired.

Mexican Big Boll Nos. 14 and 18.—These strains were originated Edgecombe County. Number 14 was selected in coöperation with the Ed combe Seed Breeders' Association, and No. 18 on the Edgecombe Bra Station farm near Rocky Mount. These strains are a little later than N and supply 35 to 37 per cent lint of 1 1/16 inch staple. These strains h yielded well throughout the coastal plain section and are recommended growers who wish to grow a longer staple cotton.

Edgecombe Cook No. 38.—This strain was selected from the best av able strain of Cook's cotton seven years ago, being selected in coöperat with the Edgecombe Seed Breeders' Association. This strain supplies 15/1 an inch staple and 38 to 40 per cent lint. It is more open-growing than original Cook, gives longer lint and has been freer from anthracnose or b rot than any other strain of Cook under our observation during the past n years. Growers who are partial to Cook cotton will find this strain a gr improvement over the old Cook variety.

Lone Star.—Seed of this variety were secured through the U. S. Depa ment of Agriculture from the best available strain in 1915. Since that ti it has been carefully selected for increased yield, uniformity of staple a earliness. It supplies a uniform full 1 1/8 inch staple and 38 to 39 per cent li This cotton is particularly adapted to well-drained soils of the south a southeast that tend to produce an early crop of cotton.

The above varieties of cotton are recommended for North Carolina beca they have yielded best when compared with other varieties under field co tions and because they have been further improved in the state by selecti good seed each year. These improved strains of cotton have proven th superiority in actual field tests in the following counties during the past n years: Pasquotank, Bertie, Beaufort, Edgecombe, Onslow, Pender, Cumb land, Richmond, Rowan, Lincoln, Hertford, Washington, Pitt, Nash, Lenc Wake, Sampson, Anson, Mecklenburg, Chowan, Martin, Halifax, Crav Wayne, Johnston, Scotland, Iredell, Cleveland, and Rutherford.

Cotton growers of the state who are interested in planting the best cott seed will be sent a list of the best breeders upon request.